THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES P. MASON

Appeal No. 96-1790
Application No. 08/285,375[1]

ON BRIEF

Before JOHN D. SMITH, WALTZ and KRATZ, Administrative Patent Judges.

WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 12, which are the only claims in this application.

According to appellant, the invention is directed to a thermoplastic molding composition containing as essential

[1] Application for patent filed August 3, 1994.

components a bromine-containing carbonate, a thermoplastic polyester, a graft polymer, and a specified brominated phosphate (Brief, page 2).[2] Appellant states that the claims stand or fall together (Brief, page 4). Accordingly, we select claim 1 from the group of claims and decide this appeal as to the grounds of rejection on the basis of this claim alone. See 37 CFR § 1.192(c)(7)(1995). Illustrative claim 1 is reproduced below:

1. A thermoplastic molding composition comprising
(i) about 40 to 90% bromine-containing carbonate component,
(ii) about 10 to 50% thermoplastic polyester resin,
(iii) about 1 to 15% graft polymer,
(iv) about 1 to 7% compound conforming to

$$0=P-[OCH_2C(CH_2Br)_3]_3$$

and optionally

(v) a positive amount up to 1% polytetrafluoroethylene, said composition containing bromine in an amount of about 1 to 14%, said percents being relative to the weight of the composition, said carbonate component containing bromine in an amount of about 1.0 to 10.0 percent relative to its weight.

The References

[2]All reference to the Brief will be to the re-submitted Brief dated September 11, 1995, Paper No. 10.

The examiner has relied upon the following references as evidence of obviousness:

Chung et al. (Chung)	4,677,148	Jun. 30, 1987
Hongo et al. (Hongo)	4,888,388	Dec. 19, 1989
Watanabe et al. (Watanabe)	5,266,618	Nov. 30, 1993

Green, "Flame Retarding Engineering Thermoplastics with Brominated Phosphate Esters", pp. 1-11, *Proceedings of Sixteenth International Conference on Fire Safety*, (Jan. 14 to 18, 1991), Millbrae, Ca.

The Rejections

Claims 1-11 stand rejected under 35 U.S.C. § 103 as unpatentable over Chung in view of Green and Watanabe (Answer, page 2). Claims 1-7 and 10-12 stand rejected under 35 U.S.C. § 103 as unpatentable over Hongo in view of Green and Watanabe (Answer, page 3). Since we are deciding this appeal on the basis of claim 1 alone (see the discussion above and 37 CFR § 1.192(c)(7)(1995)), we will combine these rejections in our opinion as Chung or Hongo in view of Green and Watanabe.

OPINION

Appellant does not dispute that both Chung and Hongo disclose thermoplastic molding compositions containing

components (i), (ii) and (iii) as recited in claim 1 on appeal (Brief, pages 4 and 6).[3] Furthermore, appellant does not dispute that both Chung and Hongo teach that flame retardant additives may be added to these molding compositions, although no particular additive is specified (*Id.*). However, appellant disputes the combination of Chung or Hongo with the secondary references to Green and Watanabe. Appellant argues that, while the elements of the claimed composition have been disclosed, "there needs to be a motivation shown, or an explanation provided, for the combination" of the references (Brief, page 5).

The examiner has applied the secondary references to Green and Watanabe to show that component (iv) as recited in appealed claim 1 is a known flame retardant for polycarbonate compositions (Answer, page 4). The examiner states that Green teaches brominated phosphate esters as flame retardants and Watanabe teaches tris(tribromoneopentyl) phosphate[4] for use as

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[3]Component (v) recited in claim 1 on appeal is optional and appellant presents no arguments regarding this component.

[4]There is no dispute that this compound is the same compound as expressed by the formula recited in component (iv) of appealed claim 1.

a flame retardant in compositions containing polycarbonate (Answer, page 3). Accordingly, the examiner has concluded that it would have been obvious to use tris(tribromoneopentyl) phosphate as a flame retardant in the molding compositions of Chung or Hongo (*Id.*).

Hongo teaches that "a conventional flame retardant" may be added to the thermoplastic resin composition of his invention (column 8, lines 9-17). Chung teaches that his thermoplastic molding compositions may contain various additives that are "customarily used in the art" such as "flame retardants" (column 8, lines 46-50).

Watanabe discloses a polycarbonate based thermoplastic molding resin that incorporates, *inter alia*, a phosphorus compound to provide excellent flame-retarding effect (column 2, lines 18-26). The phosphorus compound is used in amounts of 0.1 to 40 parts by weight[5] and is exemplified by a listing of compounds including tris(tribromoneopentyl) phosphate (column 2, lines 34-35; column 5, lines 12-36). Green teaches

[5]This amount overlaps the range recited for component (iv) in appealed claim 1.

that "Kronitex PB-370" provides a flame retardant effect for polypropylene and ABS resin[6] (see page 8).[7]

Our reviewing court has stated[8]

> The ultimate question is whether, from the evidence of the prior art and the knowledge generally available to one of ordinary skill in the relevant art, there was in the prior art an appropriate teaching, suggestion, or motivation to combine components in the way that was done by the inventor. [Citations omitted].

We agree with the examiner that the prior art provides sufficient suggestion to combine the references in the manner proposed by the examiner. Chung specifically teaches the use of flame retardants "customarily used in the art" (column 8, line 47) and the evidence cited by the examiner (Green and

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[6]"ABS" is an abbreviation for "acrylonitrile-butadiene-styrene" resin which is a graft polymer preferred as component (iii) of appealed claim 1 (see the specification, pages 7-8).

[7]"Kronitex PB-370" is characterized by Green as a "brominated phosphate ester" in contrast to "Kronitex PB-460" which is characterized as a "brominated triaryl phosphate ester" (see pages 9-10). Appellant discloses that "Kronitex PB370" is equivalent to "tribromoneopentyl phosphate, i.e., the phosphate component (iv) of appealed claim 1 (see the specification, page 13). Accordingly, for purposes of this decision, we find "Kronitex PB-370" or "PB-370" to be equivalent to the phosphate compound listed as component (iv) in appealed claim 1.

[8]*C.R. Bard, Inc. v. M3 Sys.,* 157 F.3d 1340, 1361, 48 USPQ2d 1225, 1240 (Fed. Cir. 1998).

Watanabe) shows that Kronitex PB-370 or tris(tribromoneopentyl) phosphate is a flame retardant customarily used in the art of molding compositions. See Green, page 8, where polypropylene combined with “PB-370" flame retardant is used as a “molding resin”. Watanabe is directed to molding compositions with a polycarbonate base, including thermoplastic polyesters and ABS graft polymers (see column 1, lines 11-20; column 3, lines 14-24).

Appellant argues that there is nothing in Green’s disclosure relative to aliphatic brominated phosphates that would point to their desirability as components in halogenated polycarbonate, polyester, and graft polymer compositions for the purpose of obtaining improved chemical resistance (Brief, page 5). Appellant’s argument is not well taken since the purpose for the combination in the prior art does not have to be the same as appellant’s purpose. *In re Kemps,* 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996).

Appellant also argues that Watanabe teaches that all phosphorus compounds are equivalents for flame retardancy and includes a large number of particular phosphates (Brief, page 5). Appellant’s argument is not persuasive since the number

of phosphates alone listed as flame retardants by Watanabe does not negate the teaching that the specific tris(tribromoneopentyl) phosphate component of the claims on appeal is taught to be a flame retardant customarily used in polycarbonate molding compositions. *In re Merck & Co. v. Biocraft Labs.,* 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989); *In re Corkill,* 771 F.2d 1496, 1500, 226 USPQ 1005, 1008 (Fed. Cir. 1985).

For the foregoing reasons, we determine that the examiner has established a *prima facie* case of obviousness in view of the applied prior art. Appellant has submitted evidence of "unexpected improved **chemical resistance**" in rebuttal (Brief, pages 2-4 and 6). This evidence consists of two Tables from page 13 of the specification (Brief, page 3). As noted by the examiner on page 4 of the Answer, this comparative evidence only contains one specific polycarbonate, one specific ester, and one specific graft polymer. Appellant has not shown why this evidence would be predictive of or commensurate with the scope of the claims on appeal. *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). Furthermore, appellant

has not included any explanation that "tensile elongation" is an accepted test for chemical resistance, nor any explanation of what constitutes "critical strain" and how is it determined. The comparative examples on page 13 of the specification also contain polytetrafluoroethylene (PTFE) which is not required in the molding composition of appealed claim 1. Appellant has not shown that the differences in results, especially in Table 3, are in fact unexpected and of statistical and practical significance. *In re Mayne,* 104 F.3d 1339, 1344, 41 USPQ2d 1451, 1456 (Fed. Cir. 1997)("Even [sic, if] it were obvious to a practitioner of the art [that the results were unexpected], applicants have the burden to provide the PTO with evidence showing that such is the case.").

"After evidence or argument is submitted by the applicant in response [to a case of *prima facie* obviousness], patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of argument. [Citations omitted]." *In re Oetiker,* 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir.

1992). Based on the totality of the record, we determine that the preponderance of evidence weighs in favor of obviousness of the subject matter recited in appealed claim 1. Accordingly, the rejection of claims 1 through 11 under § 103 over Chung in view of Green and Watanabe is affirmed. Similarly, the rejection of claims 1-7 and 10-12 under § 103 over Hongo in view of Green and Watanabe is affirmed. Therefore the decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

JOHN D. SMITH Administrative Patent Judge	)
THOMAS A. WALTZ Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES

)
PETER F. KRATZ)
Administrative Patent Judge)

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Appeal No. 96-1790
Application No. 08/285,375

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Appeal No. 96-1790
Application No. 08/285,375

APJ WALTZ

APJ JOHN D. SMITH

APJ KRATZ

DECISION: AFFIRMED
Send Reference(s): Yes No
or Translation (s)
Panel Change: Yes No
Index Sheet-2901 Rejection(s): _____

Prepared: November 17, 2000

Draft Final

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OB/HD GAU

PALM / ACTS 2 / BOOK
DISK (FOIA) / REPORT